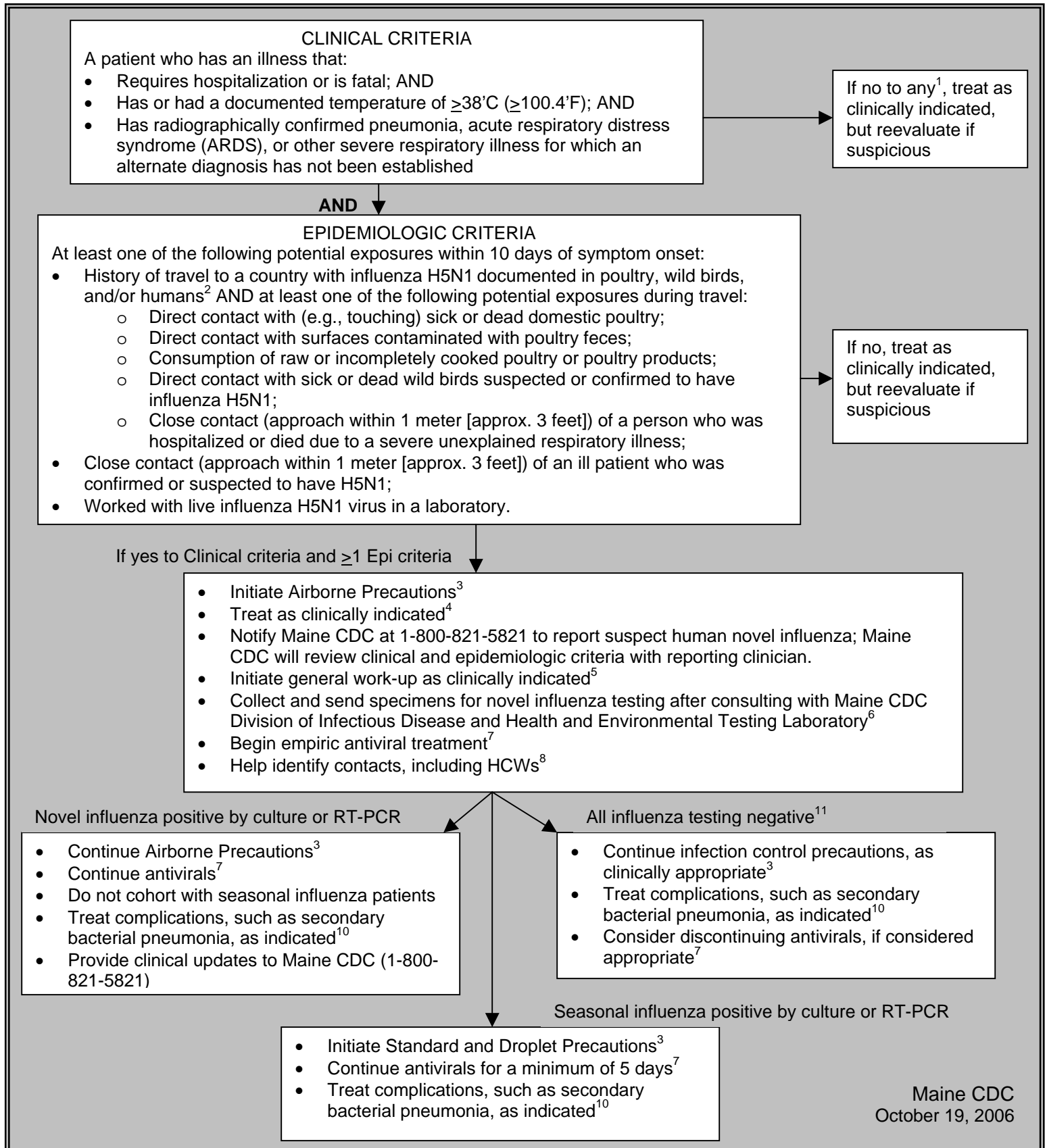


**Figure 1: Case detection and clinical management of suspect or confirmed human cases of novel influenza virus (WHO Phases 3 & 4)**

Situation: No human cases of novel influenza are present in the community. Human cases might be present in another country or another region of the United States.



1. Testing for avian influenza (H5N1) virus infection can be considered on a case-by-case basis in consultation with Maine CDC (1-800-821-5821) for:
  - A patient (hospitalized or ambulatory) with mild or atypical disease (for example a patient with respiratory illness and fever who does not require hospitalization, or a patient with significant neurologic or gastrointestinal symptoms in the absence of respiratory disease) who has one of the exposures listed as epidemiologic criteria; OR
  - A patient with severe or fatal respiratory disease whose epidemiological information is uncertain, unavailable, or otherwise suspicious but does not meet the epidemiological criteria (examples include a returned traveler from an influenza H5N1-affected country whose exposures are unclear or suspicious, a person who had contact with sick or well-appearing poultry, etc.)
  - Further evaluation and diagnostic testing should also be considered for outpatients with strong epidemiologic risk factors and mild or moderate illness: Consult with Maine CDC at 1-800-821-5821.
2. Updated information on areas where novel influenza virus transmission is suspected or documented is available at the CDC website at [www.cdc.gov/flu/avian/outbreaks/current.htm](http://www.cdc.gov/flu/avian/outbreaks/current.htm); the OIE website at [www.oie.int/eng/en\\_index.htm](http://www.oie.int/eng/en_index.htm); and the WHO website at [www.who.int/csr/disease/avian\\_influenza/en/](http://www.who.int/csr/disease/avian_influenza/en/)
3. Airborne Precautions should be used when caring for patients with novel influenza (See <http://www.pandemicflu.gov/plan/maskguidancehc.html> for more information). Standard and Droplet Precautions should be used when caring for patients with seasonal influenza. Information on infection precautions that should be implemented for all respiratory illnesses is provided at: [www.cdc.gov/flu/professionals/infectioncontrol/resphygiene.htm](http://www.cdc.gov/flu/professionals/infectioncontrol/resphygiene.htm) <http://www.pandemicflu.gov/plan/maskguidancehc.html>
4. Hospitalization should be based on all clinical factors, including the potential for infectiousness and the ability to practice adequate infection control. If hospitalization is not clinically warranted, and treatment and infection control is feasible in the home, the patient may be managed as an outpatient: Consult with Maine CDC. The patient and his or her household should be provided with information on infection control procedures to follow at home. The patient and close contacts should be monitored for illness by Maine CDC staff.
5. The general work-up should be guided by clinical indications. Depending on the clinical presentation and the patient's underlying health status, initial diagnostic testing might include: Pulse oximetry; Chest radiograph; Complete blood count (CBC) with differential; Blood cultures; Sputum (in adults), tracheal aspirate, pleural effusion aspirate (if pleural effusion is present) Gram stain and culture; Antibiotic susceptibility testing (encouraged for all bacterial isolates); Multivalent immunofluorescent antibody testing or PCR of nasopharyngeal aspirates or swabs for common viral respiratory pathogens, such as influenza A and B, adenovirus, parainfluenza viruses, and respiratory syncytial virus, particularly in children; In adults with radiographic evidence of pneumonia, *Legionella* and pneumococcal urinary antigen testing; If clinicians have access to rapid and reliable testing (e.g., PCR) for *M. pneumoniae* and *C. pneumoniae*, adults and children <5 yrs with radiographic pneumonia should be tested; Comprehensive serum chemistry panel, if metabolic derangement or other end-organ involvement, such as liver or renal failure, is suspected.
6. Guidelines for novel influenza virus testing can be found in **HHS Plan Supplement 2**. Oropharyngeal swab specimens and lower respiratory specimens (e.g. bronchoalveolar lavage or tracheal aspirate [for intubated patients]) should be collected for novel influenza virus testing.
  - These specimens are preferred because they appear to contain the highest quantity of virus for influenza H5N1 detection, as determined on the basis of available data. Nasal or nasopharyngeal swab specimens are acceptable, but may contain less virus and therefore not be optimal specimens for virus detection.
  - Detection of influenza H5N1 is more likely from specimens collected within the first 3 days of illness onset. If possible serial specimens should be obtained over several days from the same patient.
  - Bronchoalveolar lavage is considered to be a high-risk aerosol-generative procedure. Infection control precautions should include the use of gloves, gown, goggles or face shield, and a fit-tested respirator with an N-95 or higher rated filter. A loose fitting powered air-purifying respirator (PAPR) may be used if fit-testing is not possible (for example, if the person has a beard). Detailed guidance on infection control precautions for health care workers care for suspected influenza H5N1 patients is available at [www.cdc.gov/flu/avian/professional/infect-control.htm](http://www.cdc.gov/flu/avian/professional/infect-control.htm)
  - Swabs used for specimen collection should have a Dacron tip and an aluminum or plastic shaft. Swabs with calcium alginate or cotton tip and wooden shafts are not recommended. Specimens should be placed at 4°C immediately after collection.
  - Laboratory personnel should contact Maine CDC (1-800-821-5821) Epidemiology and HETL for advice on specimen preparation and transportation.
7. Strategies for the use of antiviral drugs are provided in **HHS Plan Supplement 7**.
8. Guidelines for the management of contacts in a healthcare setting are provided in **HHS Plan Supplement 3**.
9. Given the unknown sensitivity of tests for novel influenza viruses, interpretation of negative results should be tailored to the individual patient in consultation with the local health department. Novel influenza directed management may need to be continued, depending on the strength of clinical and epidemiologic suspicion. Antiviral therapy and isolation precautions for novel influenza may be discontinued on the basis of an alternative diagnosis. The following criteria may be considered for this evaluation: Absence of strong epidemiologic link to known cases of novel influenza; Alternative diagnosis confirmed using a test with a high positive-predictive value; Clinical manifestations explained by the alternative diagnosis
10. Guidance on the evaluation and treatment of suspected post-influenza community-associated pneumonia is provided in **HHS Plan Appendix 3**.